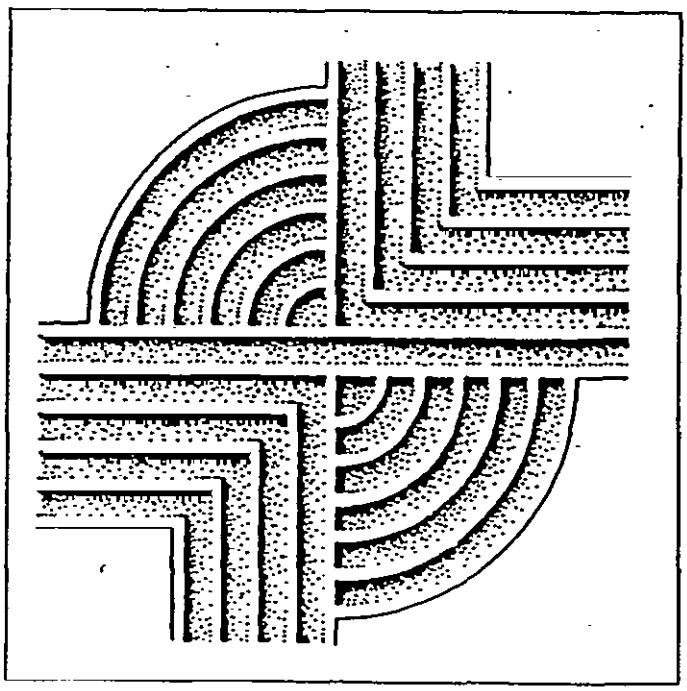
MANAGEMENT SUMMARY OF ARCHAEOLOGICAL DATA RECOVERY EXCAVATIONS AT 38BU1214, SPRING ISLAND [BEAUFORT COUNTY], SOUTH CAROLINA



RESEARCH CONTRIBUTION 49

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Chicora Research Contribution 49

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Introduction

As a result of an intensive archaeological survey conducted by Chicora Foundation, Inc. on the first phase of the proposed Spring Island development (Trinkley 1989), six archaeological sites were determined by the South Carolina State Historic Preservation Officer (SC SHPO) as eligible for inclusion in the National Register of Historic Places. A Memorandum of Agreement between the SC SHPO and the Callawassie Development Corporation, dated January 5, 1990 stipulated that the six Register eligible sites would be green spaced, subject to data recovery, or, if undeveloped by the completion of the Phase 2 survey on the island, reassessed in light of additionally discovered archaeological sites.

One of the six sites eligible for inclusion in the National Register of Historic Places, 38BU1214, was found to be within an area slated for individual lot construction activities. As a result, Chicora Foundation was requested by the developer's agent, Mr. Glen McCaskey, to develop a proposal for data recovery at this site. A proposal for those investigations was submitted by Chicora on February 10, 1990 and the work was approved by the SC SHPO on March 1, 1990 (letter from Dr. Patricia Cridlebaugh to Mr. Glen McCaskey). The work was approved by the developer on June 23, 1990. The site was also visited by the SC SHPO Staff Archaeologist, Dr. Linda Stine, while field work was in progress.

This management summary has been prepared immediately upon completion of the fieldwork and does not contain information on artifact or subsistence analyses. It is intended solely to provide a brief descriptive statement of the work conducted by Chicora and to allow the SC SHPO to verify that the proposed work has actually been accomplished. The management summary is minimally necessary for Callawassie Development Corporation to continue to the development of the land encompassing 38BU1214. This construction will destroy portions of the site and, of course, created the need for archaeological mitigation activities initially.

Archaeological investigations were begun at 38BU1214 by a crew of four on July 16, 1990 although excavation work was delayed until July 17 when our equipment was transported to the island. The work continued through August 10, 1990. A total of 594 person hours were spent in the field and an additional 94 person hours were spent on laboratory analysis and field processing. The shellfish consultant for this project, Dr. David Lawrence, spent 6 person hours in the field. As a result of this work 1775 square feet of site area were opened and 1178.5 cubic feet of soil and shell were moved in primary excavations, all screened through either 1/4 or 1/8-inch mesh.

A representative of Callawassie Development Corporation was notified verbally on August 9, 1990 that the work at the site was completed and that the units could be backfilled.

Previous Investigations

The initial investigations at 38BU1214 identified the site as situated on the north edge of the Phase 1 development at UTM coordinates E515890 N3576790. Site size was estimated to be about 600 feet by 300 feet, based on a total of 17 systematically placed shovel tests and 27 auger tests. Elevation in the site area ranges from 18 to 20 feet above mean sea level (MSL) and the soils are moderately well drained Eddings sands. Materials recovered in the initial shovel tests included one Stallings, nine Deptford Plain, and three Deptford Cord Marked sherds.

The site was interpreted to represent a small Deptford phase camp, probably dating about 500 B.C., which was oriented almost exclusively toward shellfish collection. Based on the settlement studies conducted at the conclusion of the Phase 1 survey, this site was suggested to be an example of a Type 2 midden -- a primarily oyster midden situated immediately adjacent to the marsh or other water supply which evidenced numerous shell pile accretions. A site such as 38BU1214 might be expected to represent a very early stage of repeated (perhaps seasonal) occupation at an area for the specific activity of shellfish collection. Repeated occupations would result in originally small occupation mounds gradually blending together to create more uniform middens over time.

Because so little is known about Early and Middle Woodland settlement and subsistence strategies, and the site evidenced clear integrity, it was determined to be eligible for inclusion in the National Register of Historic Places. Both Chicora and the SC SHPO, however, recognized that sites such as 38BU1214 require excavation and analyses different from many other sites if they are to yield useful data. Specifically, the major thrust of the excavations were to gather valid subsistence samples for dietary, seasonal, and ecological studies. A second thrust, based on previous investigations at 38BU747 (also on Spring Island), was a more intensive examination of interior areas adjacent to the middens. It was hoped that this approach would identify structural remains and evidence of intra-site activity areas. In many ways, the work at 38BU1214 is unique in the South Carolina low country and a variety of relatively new techniques were tested at the site to determine those approaches best suited to similar sites on Spring Island.

Excavations

The grid, established 56° west of north, parallel to the marsh, was tied into several surveyed lot points in order to

maintain long-term horizontal control. This base line established along the edge of the marsh is considered grid east-west. Although the site is expected to be heavily impacted by residential construction, two permanent points were established for the grid system (both along the bluff edge, one at 100R0 and the other at 100R400). Vertical control was maintained through the use of an assumed elevation datum (the top of the iron rebar marking grid point 100R400).

Units were established using a modified Chicago 10-foot grid, with each square designated by its southeast corner, from a 0R0 point at the southwest corner of the site. Thus the southwest corner of square 10R20 would be located north 10 feet and right (or east) 20 feet from the 0R0 point.

Work at the site was begun by excavating a series of shovel tests on a 25-foot grid pattern over the site area. Since the purpose of this testing was to identify specific midden areas, these tests were not screened, but were simply recorded as positive (i.e., shell midden was present) or negative (i.e., shell midden was not encountered). The 25-foot interval was selected since previous work suggested that the shell middens tended to be 20 to 25 feet in diameter. On the basis of this testing, which covered an area 300 by 300 feet (approximately one-half of the total site -- given the limited amount of time available at the site, our goal was not to map each midden present at the site, but rather to obtain a representative sample for future investigations), a series of 12 middens were recorded and numbered sequentially 1 through 12.

The next phase of investigations at 38BU1214 involved selecting three middens for the excavation of one 10-foot unit in each. Middens 4, 5, and 6 were selected. All were in the same general area, bordered the marsh edge, and appeared to be approximately the same size. This approach was selected over a more random approach, again, because of the limited time available for the study and our desire to control for as many variables as possible (such as distance from the marsh).

Stratigraphy across the site appeared to be similar. Zone 1 consisted on a recent humic root zone up to 0.2 foot in depth. Underlying Zone 1 was either a brown to tan sand (termed Zone 2a) which graded into yellow sand subsoil or shell midden (termed Zone 2b) which overlaid yellow sand subsoil. Zone 2a typically was 0.5 to 0.8 foot in depth, while the shell middens ranged from 0.3 to 0.6 foot in depth.

The units excavated in this phase of the study included 120R260, 60R175, and 70R120. Because of the need to avoid large trees, while still obtaining an adequate midden sample, units 60R175 and 70R120 were 75 square feet in size, rather than 10-foot square units.

After the three middens were investigated, one (Midden 6) was selected for more intensive investigation. This included opening additional units to the south (toward the marsh), to the north, and to the west. No additional units were placed to the east. This work was combined with the use of 5 by 10 foot trenches to further explore different localized site areas. Eventually trenches 60 feet to the north, 20 feet to the south, and 55 feet to the east of Midden 6 were excavated.

Soil from the midden excavations was dry screened through 1/8-inch mesh using mechanical sifters. In addition, a 2.25 foot square sample of each midden was weighed prior to sifting and the shell collected for analysis by Lawrence, was weighed after screening. This provided a quantified statement of shell density for each of the middens. Lawrence also requested that a sample of right oyster valves be collected for more specific seasonal analysis. The qualitative field assessment suggests that the middens are 99% oyster, with only very small quantities of clam, periwinkle, ribbed mussel, razor clam, and whelk. The low numbers of these species suggests that they were incidentally collected during oyster gathering. The examination of the oyster remains will include species diversity, habitat information, season of collection, and preparation techniques. Only a very small quantity of animal bone was recovered from the middens and no fish bone was recognized in the field. Charcoal was present in the middens, although the site area has been periodically burned off as a land management technique.

Non-midden units were screened through 1/4-inch mesh. The increase in mesh size for these units was based on our belief that small bones, absent the alkaline environment of the shell midden, would not be preserved in the naturally acidic soils. This was discovered to be only partially correct. Faunal remains were found in the interior area, and in much greater density. The bone, however, appears to be heavily eroded. Although the faunal remains have not yet been examined, the field assessment suggested that small mammals and occasional fish are represented.

Units were troweled at the top of the subsoil, photographed in b/w and color slides, and plotted. Excavation was by natural soil zones and soil samples were routinely collected.

The excavations revealed a series of four additional middens, ranging in size from 5 to 15 feet in diameter, along the west arm of the excavations. These middens, numbered 13 through 15, are similar to those identified in shovel testing except they are smaller. Although this work is limited, the density of middens adjacent to the bluff appears quite high, with a density of perhaps one midden every 25 feet. Inland the midden density declined rapidly, although two additional middens (Middens 16 and 17) were found 50 feet north of Midden 6. The north arm of the trench revealed that the density of animal bone, pottery, and lithics

increased dramatically inland from the shoreline middens. The south (i.e., toward the marsh) evidence of occupation almost immediately declines.

These excavations revealed at least 14 potential features, 10 (71%) of which were excavated (including Features 1 through 10). These features may be placed into two broad categories -- those which consist of shell pits found under or adjacent to shell midden piles close to the marsh (Features 1, 2, 4, 5, and 10) and those in the interior areas with thin bands of shell (Features 6, 7, and 8). In addition, there were two unique features. Feature 3 consisted of an small "dump" of periwinkle and razor clams found within interior Midden 16. This features appears to represent a discrete disposal episode. Feature 9, found midway between the marsh edge and the interior excavations, consisted of a compact light brown sand floor with sparse shell. This feature is interpreted as an occupation floor, although no evidence of distinct architectural features could be identified.

Artifacts recovered from the excavations include primarily Deptford Cord Marked and Deptford Plain sherds. A very small quantity of Deptford Check Stamped sherds were also recovered. These ceramics suggest a date of about A.D. 500 and relate to the late Deptford II phase (DePratter 1979:111; see also Trinkley 1983). Also recovered were a small quantity of chert flakes (all biface thinning flakes), several bifaces, at least one worked animal bone, and several shells which may be worked. The identifiable bifaces include one Small Savannah River Stemmed (Oliver 1981) and several Caraway Triangular points (Coe 1964). Blanton et al. (1986) have previously suggested that Caraway points may be associated with Yadkin ceramics (at essentially the same date as the Deptford wares from 38BU1214). Midden 14 was found to contain several St. Catherines Cord Marked sherds and appears to post-date the main site occupation.

During the initial shovel testing for midden locations, an area of dense shell mortar and a light scatter of historic remains was encountered at the east edge of the site. These materials were found in an area about 30 feet in diameter, with the mortar rapidly declining in density 10 to 15 feet away from the core. Both Callawassie Development Corporation and the SC SHPO were notified of this unexpected late discovery. After discussions with the parties involved, the field project was expanded to allow partial exposure of these remains.

This work involved the excavation of 525 square feet surrounding the initial discovery. The remains encountered include a hearth area (evidenced by burnt red sand), evidence of a laid mortar floor about 0.1 foot in thickness, and evidence of a log and lathe chimney plastered with mortar. No other evidence of the structure, such as posts, trenches, or a drip line, were encountered. Architectural artifacts such as nails were exceedingly

scarce, and there is no evidence for glassed windows, or even door or shutter hardware.

Material cultural remains include primarily small quantities of bottle glass, refined earthenwares such as creamware, and stoneware such as white salt-glazed stoneware. Artifact density, however, was very low and the site appears to have a very sparse cultural inventory. The mean occupation date is estimated to be about 1780 to 1790.

Field notes were prepared on pH neutral, alkaline buffered paper and photographic materials were processed to archival standards. All original field notes, with archival copies, will be curated at The Environmental and Historical Museum of Hilton Head Island although an Accession Number has not yet been assigned. All specimens will be evaluated for conservation needs prior to curation, although field assessments indicate that all prehistoric materials are stable and conservation treatments will be necesary only for the historic remains.

Interpretations

The excavations at 38BU1214 have raised our awareness of the complexity of these seemingly "small" coastal shell middens. The site was found to consist of a large number of discrete shell midden piles, each from 10 to 25 feet in diameter and from 0.3 to 0.6 feet in depth. Most of these middens are today subsurface piles, not visible on the landscape. There is good evidence that the site is essentially a single component occupation (the St. Catherines occupation being very minimal). None of the middens identified were intrusive onto one another, which may suggest a relatively short period of use.

Intra-site patterning appears clear from this limited work. The bulk of the shell middens are found along the edge of the marsh, although at least a few middens occur 200 feet inland from the marsh edge. The distinction, if any, between these middens is not clear. The middens contain a very low density of occupational refuse (such as animal bone, lithics, or pottery). They consist essentially of oyster shell and nothing else.

Around these marsh edge middens are a number of shell pits, ranging in size from 2 to 3 feet which are filled with densely packed oyster shell refuse. Some of these pits apparently originated in the upper levels of the shell middens and were only recognized at the base of the midden. Others appear to originate at the base of the shell midden and probably pre-date the midden deposition. These features, like the associated middens, contain few, if any, artifacts other than the discarded shell.

Inland (or toward the interior) there are smaller features which evidence lenses of shell commingled with relatively large

volumes of soil. Also in these interior area there is abundant evidence of pottery, primarily Deptford Cord Marked, as well as lithic working areas, with flakes of bifacial retouch and a few finished bifaces. Animal bone is found in these areas, not in the middens along the marsh edge.

At least one probable occupation floor was encountered midway between the more interior area and the marsh edge. This occupation area consisted of compacted tan sand, sparse shell crushed into the sand, and fragmented pottery. This amorphous area was only partially excavated, but is estimated to encompass about 100 square feet, although no structural remains were identified.

Subsistence remains consist primarily of oyster, although small quantities of clam, razor clam, ribbed mussel, and whelk were encountered. Very preliminary data from Lawrence (David Lawrence, personal communication 1990) suggest that these oysters may have been collected in the spring. All appear to represent deep intertidal or subtidal species, which could more easily be collected during the low spring tides. Processing information is not yet available, although the shell pits encountered may have served to steam oysters, allowing more easy access to the meat.

Faunal remains have yet to be studied, but include both small mammal and fish. These remains, like the ribbed mussel, clam, and whelk, appear to be opportunistic catches and do not appear to be a primary focus of activities at the site. There is only very limited evidence of the processing tools necessary for any major exploitation of faunal remains (i.e., only limited evidence was found for projectile points and no evidence was found for scrapers).

Ethnobotanical remains have not yet been examined, but the field collection revealed the presence of carbonized hickory nutshell, grape, and maypops (or passion flower fruit). Although hickory is typically thought of a fall fruit, it does over-winter well and may be scavenged in the early spring. It may also be stored. Grape fruits in the fall from September through October, while passion flower fruits from July through October. The presence of these later two species cannot be immediately explained if the shellfish evidence points toward a spring occupation.

At the present time, the best evidence available suggests that 38BU1214 was repeatedly occupied by small groups of Deptford "people" during the spring season about 500 A.D. to take advantage of the nearby oyster resources. This focal economy may be explained by the spring traditionally being a time of sparse resources. Shellfish were a non-migrating, permanent resource which could be counted on. Although some additional species of shellfish were collected, as were occasional fish or small mammals, the emphasis was clearly on the collection of shellfish, probably for immediate consumption. Structural remains, while not clearly identified, were

probably temporary and ephemeral.

The historic occupation at 38BU1214 is both equally interesting and ambiguous. This isolated eighteenth century structure is similar to several others identified during the survey phase on Spring Island (Trinkley 1990), although the other sites were much more poorly preserved in the archaeological record.

Based on the distribution of mortar flooring fragments, the structure measured about 10 to 12 feet square, was built at grade, and was rudely constructed. A chimney, constructed of lathe and logs plastered with mortar was present. The fire box, however, was small, measuring about 4 by 2.5 to 3 feet. At this time it is not possible to rule out thatch construction, although log construction is equally likely based on the absence of nails and other architectural hardware. A log construction is perhaps more likely given the chimney and floor construction evidence.

The structure was probably occupied by a single slave who tended nearby fields or perhaps watched over an animal herd. There is some evidence of such activities in the historical evidence. Unfortunately, this settlement pattern is very easily overlooked by archaeological survey techniques and no similar structures have been found reported in the archaeological literature. The suggested date of 1780 to 1790 would relate to George Edwards ownership of the island.

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